monuments of the Sassanian dynasty, are elaborately ornamented with curls, and project considerably from the head. Many of the figures have helmets and caps of various shapes. The draperies are richly decorated with jewels and ornaments.

A cornice, with a double row of acanthus leaves, runs along the interior and exterior of the entrance, immediately below the spring of the arch. The cornice frieze and arch are similar at the entrances of the three outer chambers. A second chamber leading out of the last, 25 feet 9 in. by 20 feet 5 in., receives no light but by the doorway. There is a large hall, or Aiwan, 98 feet 8 in. by 49 feet. The ornaments over the arch differ from those at the entrance of the small chamber; two plain stones occur between each head or bust. The cornice has but one row of acanthus leaves, beneath which runs a spiral. Within the hall are six pilasters, three on either side, decorated with human heads. Four of these pilasters have two heads *beneath* and one *above*: in the others the order is reversed. The arch of the vault springs from the summit of these pilasters. A cornice with ovolos runs round the hall, about 6 feet from the top of the pilaster; and a second cornice, with a simple spiral ornament, occurs about 10 or 12 feet from the pavement.

In a chamber leading out of the Aiwan, 31 feet by 20 feet 9 in., the doorway is ornamented with a cornice, elaborately carved into a kind of net work. The chamber has no window.

There is an isolated hall, surrounded by a lofty vaulted passage. The entrance is blocked up by fallen stones, and I was unable to enter to take dimensions of the hall, but which I should say, may be about 50 feet square; and the width of the surrounding passage averages about 11 feet. This passage is lighted by occasional windows, but the inner hall receives light through the doorway alone. The cornice which crowns this entrance is richly sculptured with human busts and fabulous animals, which may perhaps have reference to the worship of the Persians.

[The other chambers were described by Mr. Layard, but we have not space for the account. The walls which form the outer and inner courts, and surround the building, are built of cut stone, and are seldom less than 6 or 8 feet in thickness. They form, consequently, a kind of fortification to the palace.]

There is little to be added to the above description. The two courts appear to have been paved with stone. The reservoirs were supplied by deep wells, which still exist. The water was conveyed through a small channel cut in the pavement, and crossing the court.

The stone used in the building is a fossiliferous limestone, said to have been brought from the Sinjar hills. The blocks are well cut, neatly fitted, and firmly united by a very fine and tenacious cement. The stone, from its nature, is subject to rapid decomposition, and the ornaments and sculptures have been much injured by exposure. The ruins have assumed that rich golden tint which adds so much to the beauty of the great ruins of Syria.

There are sculptures in very high relief, such as a ram with the tail of a fish, human busts, &c., on the face of the palace, the use of which is not apparent; they may have been simply intended for ornament.

Mr. Ainsworth, in his memoir, has mentioned the peculiar marks, which are to be found on almost every stone employed in the buildings of *Al Hather*, and has given representations of many of them. He seems inclined to attribute some mysterious meaning to them. I have found similar marks on numerous buildings of the Sassanian epoch: for example, at Bisuten and Isfahan. In the latter city I was first induced to look for Sassanian ruins by seeing them upon stones employed in modern edifices; and I soon succeeded in finding several fine Sassanian capitals. I believe these marks to be purely fanciful, and not to be the letters of any particular alphabet: letters from a variety of alphabets may be traced amongst them. They appear to have been used for building purposes, and not to have reference to religion or astronomy. They occur on the face of the stones, in the centre, each stone being provided with one mark.*

The want of symmetry in the architecture at once strikes the eye. The height of the arches, as well as the width of the entrances in the façade, varies—and it is not improbable that there were pilasters over the lower arches, as at Ctesiphon, where the same neglect of the rules of western architecture is observable. It is evident that the style of architecture itself has been borrowed from the West, and has been adapted to the taste, manners, and climate of the east. The same thing is visible in most of the Sassanian monuments existing within the ancient limits of Persia, and there are few travellers who do not attribute the elaborate sculptures of Tak-i-Bostan, near Kirmanshah, to Roman artists.

* It would be curious to compare these marks with the collection published by Mr. Godwin in the "Archæologia."

## FOREIGN INTELLIGENCE.

*Popular Traditions of Old Continental Buildings.* — Strange are the reports which have reached our times, relating to some mediæval structures in those countries. It is difficult to conceive, in the first instance, how such piles as those cathedrals, bridges, castles, could have been erected, without any of the complicated *machinery* of estimates, contracts, tenders, — ledgers, cash and other *books*, which constitute no insignificant portion of our present *works*. This, however, will become somewhat more conceivable, if we come to know, that the wages of a labourer at the building of the bridge of Prague (14th century) are said to have been one *Groschen* a day, equivalent to five farthings English. One of the corners of the bridge is yet pointed out, where the architect (*Werkmeister*) sat every evening with his leather bag, and put the tiny coin in the hands of the men as they passed by. Himself and his assistants lived, most probably, in some convent or hostelry, and fared and messed together. Man had not become then a *quibbling* animal. The next tradition current at some of these places is, that the lime for the building of these piles was mixed with the white of eggs.

*French Glass-makers in England.* — The Belgian, and, subsequently, the French papers, have made a great *fuss* of late, regarding the *enticing* of French workmen in the newly-established glass manufactory at Hull. From Lille alone twenty men had already gone, and fifty were expected to follow. That our neighbour contemporaries should urge every *fair* argument to prevent French and Belgian glass-makers from coming here, is no more than could be expected. But they have stated a fact which we wish not to be true, and if so, to be refuted. It is said, that one of the overseers (*sous-maître*) from the manufactory of Clichy-la-Garonne had *taught* the society for which he worked (at Hull) some of the French proceedings, that the society attributed them afterwards to themselves, as their own invention, and made underhand steps for obtaining a patent. It is also stated that workmen, when ill, have been immediately dismissed, and would have died miserably if not assisted by the French consul.

*The Catacombs of Paris.*—It is well known that the districts of St. Jacques and the faubourg St. Germain, at Paris, are completely undermined by ancient quarries, known under the above name. As these subterraneous galleries became ruinous for some time past, works were undertaking for either filling them up, or securing them by walls. On the square of the College Rollin, there exists a pit, which goes right down to the catacombs, and it is by this opening that the building materials have to pass, for saving carriage, &c. For facilitating still more this operation, *débris* and other rubbish, and even large slabs of stone, are simply thrown down—which, however, lately caused the death of one of the workmen.

*Hermann's Sketches of German History.*—This artist, who, like Cornelius, has lived at Berlin for some years past, is executing an original idea, viz., to represent the chief events and phases of German history in a number of large sketches—about fifteen—to be executed in steel. The chief event to be placed in the middle—surrounded by lunettes, representing other co-ordinate events. The king is much interesting himself about this likely to become national undertaking.

CANINA'S WORK ON ARCHITECTURE. — We are happy to inform our readers that the library of the British Museum has acquired a copy of this costly work—six vols. in large folio. Rome, 1840-1844.

## ASSESSMENT OF ST. JAMES'S PARISH.

In consequence of an objection raised by Mr. Cafe, at the last petty special sessions, to the effect that the poorer classes occupying houses in the narrow and confined streets were rated on the actual rental, while the greater portion of the best streets, including Pall-mall and Regent street, which had increased in value very much, were rated at two-thirds, and frequently at only half their rental; and from the evidence which was recently adduced, it seems probable that St. James's parish will be re-assessed.

Amongst other cases quoted were two houses in Oxford-street, returned to the income-tax at 180*l.* and 165*l.*, rated to the poor at 56*l.* and 61*l.*; three houses in Regent-street, returned to the income-tax at 400*l.*, 300*l.*, and 267*l.*, rated at 130*l.*, 120*l.*, and 87*l.*; three in Pall-mall, returned to the income-tax at 210*l.*, 275*l.*, and 525*l.*, rated at 90*l.*, 77*l.*, and 140*l.* respectively.

The Hon. Mr. Byng, the chairman, said the magistrates were of opinion the rating was not in accordance with the Parochial Assessment Act, and that after this intimation, the vestry would probably re-assess the parish. They adjourned the case to the next special session in January, to give them the opportunity, and the magistrates would then deal with the case accordingly.

## "FAILURES OF RAILWAY WORKS, AND QUALIFICATIONS OF ENGINEERS."

Following up a subject more than once recently broached in THE BUILDER, and which every week is more and more pressing itself into notice, we find the *Mining Journal* has been drawing the attention of its engineering readers to the subject, under the above title. "It has been often observed," says the writer, "that a sudden demand for a commodity, which much exceeds the supply, is apt to induce adulteration and deterioration for a time; and it must be admitted, we fear, that engineering is not exempt from the general rule. The incalculable extent to which the development of the railway system has increased the demand for engineers, would appear to have been, hitherto, any thing but favourable to the general character of the profession. The supply of engineering ability has declined, while the necessity for it has increased; and we seek in vain among the works of the present time, for a parallel to those of Telford, Rennie, and Smeaton. This is mainly attributable to ignorance and thoughtlessness on the part of those who have the employment of engineers. In particular, little or no distinction seems to be popularly understood to exist between an engineer and a surveyor; and hence it has of late years been no uncommon thing, to find impudent pretenders of the latter class, who never were in any office but that of a land surveyor, or measurer, assuming the title of civil engineer; and this, through aid, perhaps, of a few sycophant-loving patrons, and ignorance and inattention on the part of the many obtaining the direction of works requiring scientific knowledge and constructive skill. Such quacks set themselves up in opposition to the members of a profession requiring a specific and arduous education, superadded to the highest order of talent—they offer to the gullable directors of public works the bait of cheap engineering — they look sharp in all directions to pick up the contrivances of genius and science, conceiving that they can do every thing by imitation. They find themselves growing rich, and begin to consider themselves great men; when some change of circumstances—slight it may be—sets their imitative powers at defiance: disaster follows miscalculation, and their works and reputation crumble together.

Such is the system whose effects begin to be felt in different localities; and which, unless changed in time, threatens a great extent of the internal communications of Great Britain with the fate of the potato crop.

The way to safety for future works is readily found. Let the character and history of the engineer be traced to its very roots! First, as to original genius: for, if a man has not been born an engineer, he never can be made one; secondly, as to education—the history of which, in fact, will answer the first inquiry also."

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